Chemical and Biological Defense Information Analysis Center
CBIAC
Serving the CB Defense Community
NEWSLETTER
Summer-1995 Vol. 1, No. 3
A U.S. Department of Defense Information Analysis Center (IAC) sponsored by the Defense Technical Information Center (DTIC)

An Overview Of Navy Efforts In CB Defense

The Navy's Chemical and Biological (CB) Defense Advanced and Engineering Development Program plays an important part in providing a defensive capability for fleet sailors, ships and critical overseas shore based assets. Execution and acquisition authority and responsibility for this program is part of the overall mission of the Naval Sea Systems Command (NAVSEA) located in Arlington, Virginia. This program, as well as all of the Navy's CB Programs, comes under the purview of the Chief of Naval Operations (CNO) Surface Ship Survivability Directorate (N86D). Designated projects encompass key functional areas of non-medical CB defense, including detection and warning, collective and individual protection, and decontamination.

A number of recent accomplishments have put the Navy program in the spotlight. In response to Chief of Naval Operations' direction to expedite the fielding of a biological detection capability following Operation Desert Storm, the Navy planned and executed a rapid prototype point biological detector development effort identified as the Interim Biological Agent Detector (IBAD). Figure 1 shows the configuration of the system that will be undergoing operational assessment and user training. IBAD is a precursor to the Navy's fully capable Biological Agent Detection System (BADS) program which is expected to take advantage of joint service development and test and evaluation initiatives.

Another significant area within the Navy program has been the development and implementation of a Collective Protection System (CPS). RDT&E efforts have yielded equipment design specifications for Chemical, Biological and Radiological (CBR) protection of designated zones

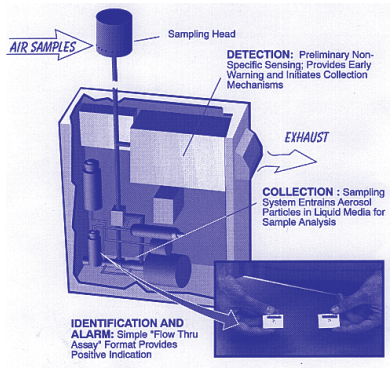

Figure 1: IBAD
The Navy's interim biological detector system.

aboard new construction and in-service ships. This system (Figure 2) forms an integral part of the shipboard heating, ventilation, and air conditioning systems.

Indicative of the acceptance and value added by this system are the positive comments received from the Commanding Officer of one Desert Storm ship equipped with the CPS. Current collective protection projects are accumulating data on potential technologies to be evaluated for the next generation CPS and for extending service time of associated CPS filtration media.

Detection of chemical agent vapor is another key component of the Navy CB defensive program. With a modest budget, using mostly in-house expertise, the Navy is close to meeting criteria for a production/deployment decision on its Improved (Chemical Agent) Detection System (IPDS) (Figure 3, see page 4).

The system recently completed an Operational Test Readiness Review and obtained approval to commence an Operational Evaluation (OPEVAL). The ion mobility spectrometry (IMS) system employed is designed to operate under all shipboard environmental conditions. An algorithm library is used to minimize shipboard inherent false alarms by rejecting interferant signals. A high volume external air sampling unit is designed specifically for shipboard air flow applications. Power supply, cabling, and connectors are configured for interfacing with future shipboard

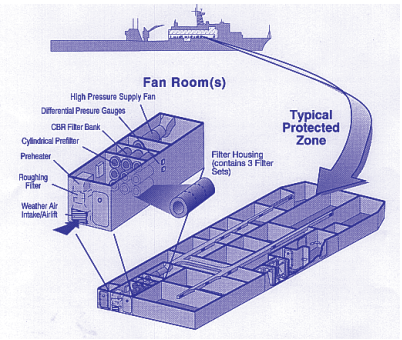

Figure 2: CPS
CBR filter systems in fan rooms which supply clean air to protected zones and air locks which seal protected areas are key elements of the collective protection system (CPS) being deployed on Navy ships.

See "An Overview of Navy Efforts"
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On the Inside

ONGOING AND RECENT ACTIVITIES

• Ms. Nancy Brletich and Mr. Jim Leonard represented the CBIAC at the Defense Nuclear Agency's Fourth Annual International Conference on Controlling Arms, held at the Wyndham Franklin Plaza Hotel in Philadelphia, Pennsylvania, from June 19-22, 1995. The CBIAC display was featured, highlighting DNA sponsored Technical Area Tasks; CBIAC Starter Kits were provided to attendees.

• The CBIAC co-sponsored a display at the Canon/Artillery Firepower Symposium, sponsored by the ADPA Picatinny Arsenal Chapter in conjunction with the U.S. Army ARDEC, held at the Seasons Resort and Conference Center at Great Gorge in McAfee, New Jersey from June 19-22, 1995. CBIAC Starter Kits were provided at the conference.

• The CBIAC organized and coordinated the 1995 Scientific Conference on Obscuration and Aerosol Research, hosted by the Edgewood Research, Development and Engineering Center at the Edgewood Area Conference Center, Aberdeen Proving Ground, Maryland, from June 21-23, 1995. Ms. Heather Cowan was the point of contact for this conference.

• Ms. Mary Jo Waters (CBIAC) attended Armed Forces Day on May 20, 1995. Displays of military equipment and programs as well as tours of some of the test sites and facilities gave attendees a greater understanding of the programs and projects being conducted by the armed forces. Armed Forces Day is part of Military Appreciation Week, sponsored by the Harford County Chamber of Commerce, and held at the Aberdeen Area of Aberdeen Proving Ground, Maryland from May 14-20, 1995.

Information Acquisition and Processing

• Documents in the area of chemical weapons treaty, treaty policy and doctrine, international security, detection of chemical agents, and remediation plans for base closures were added to the CBIAC collection during the third quarter, FY 95.

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• Nearly 1100 documents were cataloged into the Defense Technical Information Center (DTIC) Defense Research On-line System (DROLS) Technical Reports (TR) database last quarter.

Inquiry and Referral Services

• Last quarter the CBIAC received 227 inquiries. Over 20% of the inquiries for last quarter were related to NBC Contamination Survivability.

Products

• The CBIAC has recently published a Starter Kit containing flyers covering the scope of the CBIAC, the services available through the CBIAC, a description of the current awareness products and our Products List. Starter Kits may be obtained free of charge by contacting the CBIAC.

Technical Area Tasks (TATs)

• Since the last newsletter, 20 TATs have been awarded and effort was added to six ongoing tasks. As of 30 June, 43 TATs have been awarded and work has been added to 11 tasks. Total value of TATs awarded under our new contract is over 9.2 million dollars. Figure 1 shows distribution of TAT sponsors. Eleven TATs under the old contract were completed.

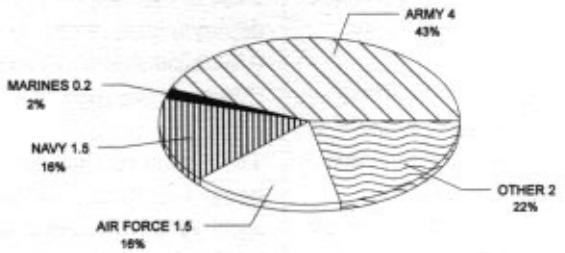
• Do not hesitate to contact Judith M. Shetterly at the CBIAC (410) 676-9030 if you would like further information on a CBIAC TAT. In order for us to help you most efficiently, please furnish the Government contract number you are working on (if any), the reason(s) you want the information and your company address and phone number. We need this information in order to obtain release of information from the TAT sponsor.

Completed:

Task	Description/Sponsor
72	Review and Analyze the Wiswesser Line Notations of ERDEC Chemical Compounds. USA/ERDEC
182	Assess Design Requirements for Integrating NBC Detection Equipment into the ASM Vehicle Family. USA/ERDEC
445	Evaluate the Feasibility of Field Decontamination of Contaminated Saratoga Garments for Re-use. USAF/HSD
473	Evaluate Smoke Formulations to Produce a Mixture Representative of Furnished Material. USA/ARL
475	Evaluate Adequacy of Present Stockpile of CB Protective Clothing and Identify Data Gaps that Need to be Filled. USA/NRDEC
480	Provide Technical Support to the 1994 Scientific Conference on Obscuration and Aerosol Research. USA/ERDEC

See Ongoing and Recent Activities
Continued On Page 10

Figure 1
TECHNICAL AREA TASKS
(Millions)



CONTRACT AWARDS

1. Destruction Absorbents for Chemical Agents and Hazardous Chemicals.
   I. Tel Inc.
   33 South Boulder Circle, Unit 101
   Boulder, CO 80301
   $63,280. 15 March 1995

2. A Rapid, Inexpensive Immunosensor for the Detection of Validated Biological Warfare Agents.
   DAMD17-95-C-5050
   DDX Incorporated
   2555 55th Street, Suite D 101
   Boulder, CO 80301 (0100)
   $70,000. 12 April 1995

3. Bioerodible Polymeric Microcapules for Vaccine Delivery.
   BSI Corporation
   9924 West 74th Street
   Eden Prairic, MN 55344
   $69,924.

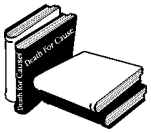
4. Biodegradable Bioadherent Microcapsules for Orally Administered Sustained Release Vaccines.
   Lynntech, Inc.
   7610 Eastmark Drive, Suite 105
   College Station, TX 77840
   $70,000. 24 March 1995

5. Efficient Photoremediation of Chemical Agents by Quantized Semiconductor Nanocatalysts.
   Nanomaterials Research Corporation
   10960 North Stallard Place
   Tucson, AZ 85737
   $70,000. 24 March 1995

6. Chemical Protective Glove Set
   SP0100-95-C-5061/N/A
   Charleston Rubber Co.
   Box 4367
   Charleston, SC 29405 (0093)
   $2,056,638. 6 April 1995

7. Comprehensive Evaluation of Catalytic Hydroeducation as an Alternative for Detoxification of Chemical Wastes.
   Research Triangle Institute
   P.O. Box 12194
   Research Triangle Park, NC 27709
   $261,342. 1 April 1995

NEW FICTIONAL RELEASE BY MEERKAT PUBLICATIONS, DEATH FOR CAUSE



The gas attack in Tokyo's subway, the ebola virus outbreak, and the Oklahoma City bombing - these events parallel the plot of a new novel, Death For Cause. Although fiction, the book offers a highly realistic tale of terrorists who use biological weapons to coerce the U.S. Government. Their goal is to force changes in U.S. policies on birth control, pesticide use, and other environmental issues. These "ecoterrorists" do not mind killing for a cause, their cause. Their plan is well crafted and executed, making it difficult for anyone to stop them, or even find out who they are. This book offers a troubling vision of how easy it would be for terrorist to produce and use weapons that can kill plants and animal - especially humans. It also portrays how difficult it can be for Washington bureaucrats to deal effectively with crises.

Order Information

To order Death For Cause from Meerkat Publications write to P.O. Box 181, Livermore, CA 94551 or fax to: (510) 736-6703. The cost is $12.00, plus $.99 sales tax for California residents and $3.50 for shipping

About the Author

K.C. (Kathleen) Baily, a Ph.D. political scientist, is an expert on the proliferation of weapons of mass destruction (she has written three nonfiction books on the subject). Her knowledge of biological weapons - how they are made and the danger they pose - makes the terrifying plot of Death For Cause all to real. Dr. Baily also draws on her first-hand experience with Washington politics. She has worked in high-level positions in both the U.S. Department of State and the U.S. Arms Control & Disarmament Agency, and now works at Lawrence Livermore National Laboratory.

THE PENTAGON SPEAKS

In cooperation with the Office of the Assistant to the Secretary of Defense (Chemical and Biological Matters), the CBIAC will be introducing a new column entitled The Pentagon Speaks, in upcoming issues of the CBIAC newsletter. This column will afford readers an excellent opportunity to pose questions pertaining to CB defense issues to the Pentagon, through the CBIAC. We urge you to please take advantage of this opportunity by submitting your questions in writing to the attention of Nancy Brletich via mail, electronic mail or fax by the deadlines indicated below:

Winter Issue	November 1
Spring Issue	February 1
Summer Issue	May 1
Fall Issue	August 1

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IN MEMORIUM

ANDREW R. JEFFERS
May 27, 1927 - May 2, 1995

Andy's career in government and industry spanned about thirty-five years. His contributions and achievements were numerous. Good enough was never good enough. He spent his adult life trying to find better ways to do things.

Andy began his Air Force civilian career in the 1950's as a psychologist, working on human factors, but quickly transgressed into engineering. He was responsible for the design and test of the B-58 Voice Warning System and the development of the first all-digital mission simulator for F-111 design use. Andy was also the responsible Air Force engineer for the F-111 cockpit configuration and escape module. He later became the Chief System Engineer for the BARE BASE SPO and the LIFE SUPPORT SPO. Then he went back to airplanes, becoming the Chief Crew Systems and Support Equipment Engineer for the F-16 Program Office. His chemical defense involvement came into force when he served as the Chief Support Systems Engineer for the Aeronautical Systems Division (ASD) Deputy for Development Planning. His final position with the Air Force was as Chemical Defense Technical Focal Point for ASD. Andy was recognized as an authority on chemical warfare defense. He spent the last fifteen years of his life working in this area.

Andy didn't slow down when he retired from civil service, continuing to work because he enjoyed work, people and problem solving. He just changed employers, providing technical expertise in chemical/biological defense and human factors first for Battelle and then as a consultant specializing in carbon adsorption, filtration and specialized fabrics/materials for Blücher, GmbH of Germany. During this time, he also was a guest lecturer on aircraft survivability in the chemical warfare environment at the Naval Postgraduate School. Most recently he was working as a consultant to Tex-Shield, Inc. where he made significant contributions to the technology and manufacture of chemical warfare protective garments.

As many of his friends know, when Andy wasn't working professionally, he was often at Lake Erie working on his boat, friend's boats or his cottage. Working on something he loved, making things or making things happen were his kind of fun.

Andy will be fondly remembered and missed by his family, friends and associates. He is survived by his three children: Kathy Angle of Reston, Virginia; Tom Jeffers of Englewood, Ohio; and Susan Boysel of Dayton, Ohio and two "apple-of-his-eye" grandchildren, Catie and Ethan.

Who knew that Andy's career once almost took a dramatically different track? After doing theatrical makeup for the San Diego Community theater while he was in the Navy, Andy actually went to Hollywood to look into a career as a movie makeup artist. He was offered two films, both of which he turned down - one based on content and the other based on its shooting location in Mexico.

"An Overview of Navy Efforts"

Continued from Page 1

information and damage control systems. It is no mystery why the Navy is able to achieve the success that it has. Long before joint cooperation became recognized for the efficiencies it offers, the Navy had been effectively leveraging work being performed by other services and industry. Examples include:

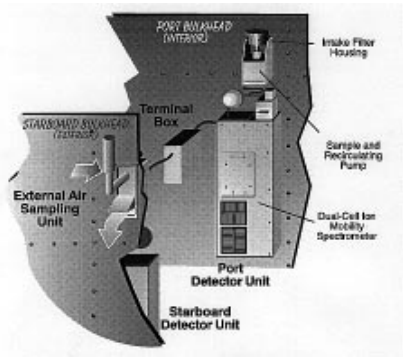


Figure 3: IPDS
Placement of external sampling devices and detector units in the weather-bulkhead of ships.

- Modification and joint acquisition of the Army initiated, MCU-2/P series mask by the Air Force and Navy,
- Navy integration of an Army designed and developed M56 Chemical, Biological and Radiological (CBR) filter into its collective protection systems,
- Conversion of an Army tank optical device into the Navy's Chemical Warfare Directional Detector,
- Utilization and adaptation of IMS and laser particle counting technologies designed and developed by industry for chemical and biological detection, respectively,
- Participation in the Joint Service Lightweight Integrated Suit Technology (JSLIST) Program - originally a Marine Corps advanced technology demonstration testing effort.

The Navy's ability to effectively manage resources, identify development strategies to meet operational requirements, and monitor and integrate applicable outside technology work has contributed to its high level of efficiency. In doing so, the Navy CB Program continues to meet its goal of maintaining vigilance in a CBR threat environment through continuous improvements of fleet defensive capabilities.

TECHNOLOGY TRANSFER

This column serves the CB community by showcasing new technologies, by communicating industry needs and by providing sources of additional technology transfer information. The CBIAC Newsletter invites written submissions from its' readers for this column in upcoming newsletters. Please submit copy to Mr. Don McGonigle (mcgonigl@battelle.org).

This issue continues to cover points of contact and information available for industry and Government and will discuss several issues facing the technology transfer process.

Technology Transfer on the World Wide Web (WWW)

The WWW is available to anyone with access to the Internet. Several NASA and Federal technology transfer resources are available at the National Technology Transfer Center (NTTC) Home Page—http://www.nttc.edu/ nttc.html. The following is a listing of resources available at (or through) this location:

- NTTC Activities, Projects, and Information Gateway: Information about the NTTC and its mission
- Technology Transfer Gateway: Organizations, Networks, Programs, Events, and Employment Opportunities
- Inventions and Innovation Gateway: Sources of Assistance for Inventors and New Inventions (Sponsored by the Department of Energy)
- Technical, Financial, and Business Assistance Gateway: Technical and Economic Assistance for Small Businesses
- Environmental Technology Gateway: News, Programs, Technologies and Resources
- Government Agency Gateway: Links to over 400 Federal Government homepages
- Health, Assistive, and Rehabilitation Technology Gateway: National Institute on Disability and Rehabilitation Research (NIDRR) Directory
- Law Enforcement Gateway: Department of Justice and Criminal Justice Information
- Licensing and Partnership Opportunities Gateway: Licensing opportunities from JPL and others, Cooperative Research and Development Agreement (CRADA) opportunities
- Manufacturing Technology Gateway: Programs, Technologies, and Resources for Manufacturers
- Solicitations and Opportunities Gateway: Small Business for Innovation Research (SBIR) Solicitations, Small Business for Technology Transfer (STTR) Solicitations

The NTTC is the hub of a national network linking U.S. companies with federal technologies. Those technologies can be converted into practical, commercially-relevant applications. Additionally, the center's free Gateway Service provides callers with direct contacts in the federal laboratory system. The Gateway Service is available 8:30 am to 8 pm EST weekdays by calling (800) 678-6882.

Technology Transfer in Practice

Last year we interviewed several people involved in the Tech Transfer program at DOE's Pacific Northwest Lab (PNL). The following information is from discussions with Bruce Harrer and Marv Clement [tel: (509) 375-2789 and fax: (509) 375-6731] from the Office of Research and Technology Applications (ORTA), Technology Transfer Directorate PNL (http://w3.pnl.gov:2080/transfer/ t2home.html).

Lessons Learned for Effective Technology Transfer

The most effective method is for the Government to set aside funds to make it happen. Most DOE technology transfer programs happen because they are funded. In this situation the laboratory can find industrial partners, establish agreements, and motivate the technical staff at the lab to consider commercial spinoffs. Most industry contacts are made by technical personnel attending meetings with industry in attendance but a far more effective approach is to bring industry into the laboratories to explain the technologies that are available. Staff exchange is very effective: industry pays the salary and the lab pays per diem and travel. It establishes a basis for doing joint programs and makes it possible for industry personnel to come to a lab to work. The DOD Technology Reinvestment Program (TRP) (http://ixc.net/zyn/flchome.html) allows industry to propose joint efforts, and, many times, PNL writes these for industry too. Currently 80% of the CRADAs are from the TRP program. As industry R&D budgets get cut, there is more interest in government tech transfer, but it takes time for industries to find the gold nugget (relevant technology).

Potential Detection Technologies

David Noever, Marshall Space Flight Center [tel: (205) 544-7783 and fax: (205) 544-1777] has developed a method to determine generic toxicity by automatically measuring the swim rate and number of protozoa. This system may be useful for a supersensitive chemical agent sensor. It compares well with the rabbit eye testing that was previously used by the cosmetic industry. ERDEC work in sperm motility can be leveraged to work with similar systems with the advantage of rapid and automatic analysis. John Rakazcy [tel: (410) 575-5387] is the ERDEC Technology Transfer Focal Point.

Automated Soil Sample Instrumentation

Idaho National Lab has developed a modular chemical sample preparation (soils) and analysis system based on standard lab modules (benefits all environmental work). Lockheed and Hewlett-Packard are the system integrators with participation from PNL, Sandia, and Los Alamos. (http://www.inel.gov/techtransfer/ tech-toc.html)

Editorials Welcomed!

If you would like to submit an editorial for publication in our next issue of the CBIAC Newsletter, please contact Mary Jo Waters, at the CBIAC. For those interested in submitting editorials, we ask that you provide us with an electronic copy as well as a hard copy of your editorial.

CALENDAR OF EVENTS

The CBIAC highlights conferences, symposia, meetings, exhibitions and workshops of interest to the CB community in every issue of our newsletter. We invite CBIAC users to submit information on various events to the attention of Elizabeth L. Hamm. She may be reached at the address, phone and fax numbers on the back page of this newsletter, or via the internet: hamme@battelle.org. Due to space limitations, the CBIAC will accept submissions on a first-come, first-served basis and reserves the right to reject submissions.

1995 MEETINGS

Date/Name/Location	Contact(s)
July 30-Aug 4, 1995	
5th Pan American Symposium Animal, Plant and Microbial Toxins Holiday Inn Francis Scott Key Mall, MD	USAMRIID Attn: Dr. Kay Mereish Toxinology Division Frederick, MD 21702-5011 Tel: (301) 619-7211 Fax: (301) 619-2348
Aug 2-3, 1995	
Chemical-Biological (CB) Defense Science & Technology Review Conference Center APG Edgewood Area, MD	U.S. Army ERDEC Attn: Tricia Weiss (SCBRD-ASP) APG, MD 21010-5423 Tel: (410) 671-2032
Aug 8-9, 1995	
ComDef '95 Vancouver, British Columbia CANADA	IDEEA Inc. 6233 Nelway Drive McLean, VA 22101-3141 Tel: (703) 760-0762 Fax: (703) 760-0764
Aug 23, 1995	
JWFC Joint Training Analysis & Simulation Center Omni Waterfront Norfolk, VA	American Defense Preparedness Association (ADPA) Attn: Barbara McDaniels 2101 Wilson Blvd., Suite 400 Arlington, VA 22201-3061 Tel: (703) 522-1820
Sept 4-8, 1995	
Royal Navy and British Army Equipment Exhibition Aldershot, UNITED KINGDOM	Defence Export Services Org. Attn: Andrew Kempson MDS 3 Exhibitions Room G01, Stuart House Soho Square London, UK Tel: 44 71 305 4468 Fax: 44 71 305 4441
Sept 11-14, 1995	
6th Annual Camouflage, Concealment & Deception Symposium Fleet Combat Training Center Atlantic, Dam Neck Virginia Beach, VA	American Defense Prepardeness Association (ADPA) 2101 Wilson Blvd., Suite 400 Arlington, VA 22201-3061 Tel: (703) 522-1820
Sept 17-20, 1995	
Emerging Technologies in Hazar- dous Waste Management VII Stouffer's Waverly Hotel and and Cobb Galleria Atlanta, GA	American Chemical Society (Industrial and Engineering Chemistry Division) c/o Meeting Makers P.O. Box 70096 Marietta, GA 30007-0096 Tel: (404) 894-2856 Fax: (404) 894-2866
Sept 17-21, 1995	
International Society for Respiratory Protection-7th Conference Hyatt Regency Vancouver Vancouver, British Columbia, CANADA	ISRP Attn: J.T. Vanchuk, President 8598 Kingcome Crescent Sidney, British Columbia V8L 5C7 Canada Fax: (604) 656-8838
Sept 19-20, 1995	
Combat Vehicles Ft. Knox, KY	American Defense Preparedness Association (ADPA) 2101 Wilson Blvd., Suite 400 Arlington, VA 22201-3061 Tel: (703) 522-1820
Sept 20-23, 1995	
IDEF '95 2nd International Defence Industry and Civil Industry and Civial Aviation Fair Etimesgut - Turkkusu Turkish Air League Airport Facilities Ankara, TURKEY	Tüyap Fairs and Exhibitions Organization, Inc. Tel: 90 0212 211 67 04 Fax: 90 0212 267 16 81
Sept 26-28, 1995	
International Training Equipment Conference/Asia & 3rd Asian Civil Aviation Training Conference SINGAPORE	American Defense Preparedness Association (ADPA) 2101 Wilson V\Blvd., Suite 400 Arlington, VA 22201-3061 Tel: (703) 522-1820
Oct 2-5, 1995	
Night-Operations Symposium (NOS) XII	American Defense Preparedness Association (ADPA) 2101 Wilson Blvd., Suite 400 Arlington, VA 22201-3061 Tel: (703) 522-1820
Oct 10-13, 1995	
9th Annual Meeting of the U.S./ German Data Exchange Agreement Adam's Mark Hotel Denver, CO	U.S. Army ERDEC Attn: Dr. Randall Wentsel (SCBRD-RT) APG, MD 21010-5423 Tel: (410) 671-2036 Fax: (410) 671-2081
Oct 16-18, 1995	
Association of the United States Army (AUSA) Exhibition Washington, DC	AUSA 2425 Wilson Blvd. Arlington, VA 22201 Tel: (703) 841-4300, Ext. 660 Fax (703) 252-9039
Oct 24-26, 1995	
Technology 2005 McCormick Place Convention Ctr. Chicago, IL	National Aeronautics and Space Administration (NASA) Attn: Mr. Michael Weingarten Washington, DC 20546-0001 Tel: (202) 358-1680

Date/Name/Location	Contact(s)
Oct 25-27, 1995	
The Worldwide Chemical Conference XIV NBC Operations Symposium U.S. Army Chemical School Fort McClellan, Anniston, AL	American Defense Preparedness Association (ADPA) 2101 Wilson Blvd., Suite 400 Arlington, VA 22201-3061 Tel: (703) 522-1820
Oct 31 - Nov 1, 1995	
Tank Automotive Command (TACOM) APBI Dearborn, MI	American Defense Preparedness Association (ADPA) Attn: Col. Ira Click 2101 Wilson Blvd., Suite 400 Arlington, VA 22201-3061 Tel: (703) 247-2573
Oct 31 - Nov. 3, 1995	
COPEX UK Sandown Exhibition Center Esher, Surrey, UNITED KINGDOM	COPEX International Ltd. 33 A Church Road Watford, Herts, WD1 3PY United Kingdom Tel: 44 923 819 301 Fax: 44 923 818 927 Compuserve: 100010.3545
Dec 2-4, 1995	
International Conference on Combinatorial Library Methods for Basic Research and Drug Discovery Arizona Health Sciences Ctr. DuVal Auditorium Tucson, AZ	Arizona Cancer Center The University of Arizona Tucson, AZ 85724 Tel: (502) 626-2276 Fax: (502) 626-2284

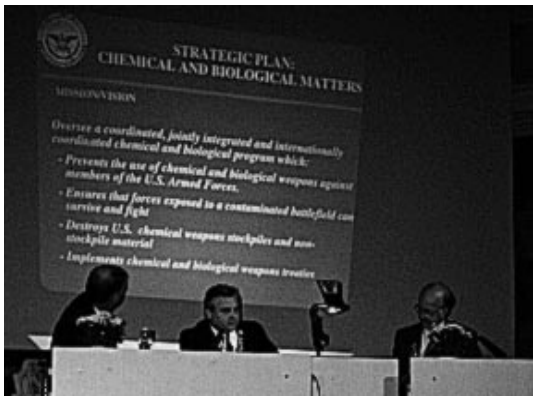
1996 MEETINGS

Jan TBD, 1996	
AUSA 8th Annual Winter Exposition Orlando, FL	Association of the United States Army (AUSA) 2425 Wilson Blvd. Arlington, VA 22201 Tel: (703) 841-4300, Ext 660 Fax: (703) 252-9039
June 24-29, 1996	
Eurosatory '96 Land Defence Equipment Paris-Le Bourget, FRANCE	GICAT Comissariat Générale Eurosatory 64 rue Ranelagh 75016 Paris France Tel: 33 1 42 30 71 11 Fax: 33 1 42 30 70 88
Sept, 1996	
Night Vision '96 London, UNITED KINGDOM	Shephard Conferences 111 High Street Burnham, Bucks SL1 7JZ United Kingdom Tel: 44 628 604746 Fax: 44 628 664075

MEETING HIGHLIGHTS

The Fifth International Symposium on Protection Against Chemical and Biological Warfare Agents

The CBIAC attended this most important meeting which was held from the 11th through the 16th of June in Stockholm, Sweden. The meeting was proceeded by a seminar on the CBW Verification which was held on the 10th and 11th of June. Over 700 delegates from over 35 countries attended the symposium. Sessions were held on the following topics: detection, decontamination and destruction, filters and filtration, body protection, respiratory protection, medical protection, verification and threat analysis. The meeting highlights included a presentation by Dr. Kazuhiko Maekawa on the sarin poisoning incident in the Tokyo subway and a report by Dr. Bo Niklasson on the ebola fever outbreak in Zaire. Also of great interest was the presentation given by Dr. Ted Prociv (see picture), the OSD Deputy for Chemical/ Biological Matters on changes in the U.S. Chemical-Biological program including how it will be managed. The keynote address was given by Dr. Graham S. Pearson, United Kingdom, where he stressed the continuing need for both passive and active defense against chemical and biological threats even as the CWC and a potential BWC enter into force.



Dr. Åke Bovallius of the National Defence Research Establishment (left) chairman of the "Fifth International Symposium on Protection Against Chemical and Biological Warfare Agents", looks on as Dr. Theodore Prociv (center), OSD Deputy for Chemical/Biological Matters, gives his presentation. Dr. Graham Pearson (right) gave the keynote address for the symposium.

CB NEWS EXCERPTS

In order for the CBIAC to inform its readers of recent Chemical/Biological defense activity throughout the United States and around the world we have compiled a list of related CB news articles and have taken excerpts from them to create brief overviews. Please note that the CBIAC does not provide secondary distribution of articles. We can, however, provide direction on where to find an article of interest.

Tigner, Brooks. "Proliferation Threat Unites NATO." Defense News. The first stage of NATO's proposed three stage decision to address the threat of weapons of mass destruction was to create a classified document which points out potential areas of threat; it was endorsed by all 16 NATO countries. The second stage, weighing the implications of this report, began in March; the third stage will begin in 1996.

Toups, Catherine. "Iraq Retains Biological War Threat." The Washington Times, 29 Apr 95. UN inspectors firmly believe Iraq is storing deadly biological weapons because of past purchases of products such as spray dryers, filling machines and 17 tons of growth media, all of which can be used to produce biological weapons.

Erlich, Jeff. "Acquisition Reform Gathers Speed." Defense News. The Federal Acquisition Streamlining Act, passed in 1994, set the stage for major procurement reform in the defense industry. A change to the Arms Export Control Act will include a bill to remove fees paid by foreign buyers of U.S. weapons. This reflects a shift of personalities and ideology in the Republican-controlled Congress.

Starr, Barbara. "CW Stockpile A Threat to Straits of Hormuz'." Jane's Defence Weekly, 1 Apr 95. Iran has deployed chemical munitions on the island of Abu Musa in the Persian Gulf which William Perry, Secretary of Defense says are "beyond any reasonable defense requirement" and can be regarded as very threatening to shipping in the area.

Safire, William. "Iraq's Ton of Germs: The Media is the Message." The New York Times, 13 Apr 95. The UN's Commisssion for Verification of Iraqi Compliance chairman said they were able to account for 22 of 39 tons of media purchased in 1988 suitable for use in production of anthrax and botulinum; however, were unable to locate 17 tons of media, which could grow one ton of spray dried living germs.

Bonner, Raymond. "Croatia Bars Extradition of a U.S. Fugitive in Poison Gas Case." The New York Times, 20 Mar 95. A German pharmacist named Peter Walaschek, 52, participated in a scheme to sell thiodiglycol to Iran in 1987 and 1988, and was held in the United States on a $350,000 bail bond before his release last February 28, on the basis that his offense was not a crime under Croatian law. He was arrested on an international warrant in Croatia last November during a meeting at a hotel favored by arms dealers

.

Reid, Bruce. "4 Chemical Shells found Unexploded at Aberdeen." The Baltimore Sun, 5 May 95. A 15 member team of explosive experts combing the Proving Ground's 5 mile boundary found five unexploded chemical shells in two weeks. Most contained phosgene or mustard agent; one was 50 years old and had been drained of any chemical it once contained. The others had deteriorated explosive components or no explosive tips and were not dangerous to the public.

"Yeltsin Orders Destruction of Chemical Arms Stockpile." The Washington Times, 26 Mar 95. President Boris Yeltsin ordered the destruction of 40,000 tons of chemical weapons; Russia has until 2005 to destroy its arsenal, destruction is estimated to cost between 5 and 6 billion dollars. U.S. officials have accused Moscow of hiding a program to produce binary weapons. Binary weapons are two chemicals that, when combined, are poisonous

.

Barkho, Leon. "Iraq Shows Foreign Reporters Main Biological Site." REUTER, 22 Apr 95. The Director for the al-Hakam site for production of pesticides and fertilizers in Iraq, a British trained microbiologist, explained that the large amounts of biological equipment and materials is being used to meet the country's need for animal feed, which is estimated at two million tons a year. Taha said she understands the suspicions of the UNSCOM (UN Special Commission), but called them "exaggerations".

Rake, Julian. "Ceremonies Mark 80th Anniversary of WWI Gas Attack." REUTER, 22 Apr 95. In Ypres, Belgium, ceremonies in memory of the German troops' chlorine gas attack on French troops in 1915 help to concentrate efforts to ratify the CWC. Foreign Minister Derycke pledges to be one of the first to ratify; the country's determination has been reinforced by the Gulf War attacks and the recent Tokyo terrorist subway incidents.

"Anniston Prepares for Emergency." Chemical Demilitarization Update, May 95. On March 15, Anniston Army Depot in Alabama held an exercise to simulate an accident and practice emergency procedures in case of explosion or leakage of chemical munitions. The scenario involved M55 rockets and the nerve agent GB, with some people sustaining simulated injuries. Exercises will be held annually until the chemical weapons stockpile is destroyed.

To Place an Ad in CBIAC News...

The CBIAC is now accepting paid advertisements from the chemical and biological defense community. Our general policy is to include ads pertaining to scientific and engineering equipment and services and other commodities generally related to the mission and scope of the CBIAC. All advertisements are subject to approval by our COTR before being printed. If you would like to run an ad, please contact Judith M. Shetterly for additional information on price and policy

SELECTED TECHNICAL RESPONSES

This section of the newsletter contains recent technical inquiries and responses on subjects we feel are of interest to our users. The information presented has been edited to conserve space. If you would like further detail, please contact Steven Jones at the CBIAC and reference the number indicated in parentheses.

Q: Is polyvinylchloride (PVC) compatible with chloroform? If not, which materials are compatible with chloroform? (Reference: 95-0580)

A: According to the Plastics Design Library* (PDL) database, PVC is not recommended for use with chloroform. Chloroform has little or no effect on the following materials which are recommended for use with chloroform by the PDL database (Version 2.0):

Tetrafluoroethylene Perfluoromethyl Vinyl Ether Copolymer (FFKM)

Vinylidene Fluoride Hexafluoropropylene Copolymer (FKM)

Ethylene Chlorotrifluoroethylene Copolymer (ECTFE)

Ethylene Tetrafluoroethylene Copolymer (ETFE)

Fluorinated Ethylene Propylene Copolymer (FEP)

Perfluoroalkoxy Resin (PFA)

Polytetrafluoroethylene (TFE)

Polyvinylidene Fluoride (PVDF)

Nylon 66 (PA66)

Resorcinol Modified Phenolic (Phenolic)

Polyimide

Polyphenylene Sulfide (PPS)

Polyethersulfone (PES)

Methylvinylfluorosilicone (FVMQ)

Ethylene Vinyl Alcohol Copolymer (EVOH)

Polybenzimidazole (PBI)

Polyamideimide (PAI)

* For further information on the PDL, contact:

Plastics Design Library
345 East 54th Street, Suite 5C
New York, NY 10022
(212) 838-2817

RESPONSES TO OUR PRODUCTS AND SERVICES EVALUATION

The CBIAC has received numerous suggestions regarding subject areas of interest for future products such as handbooks, State-of-the-Art Reports (SOARs), critical reviews, technology assessments and demand bibliographies. Topics of repeated interest were in the areas of combat effectiveness, individual and collective protection and chemical and physical properties. Numerous survey respondents expressed an interest in CD ROM products including databases and videotapes. Respondents indicated that they have heard about our services primarily through our newsletter and from our display efforts at conferences. Many respondents have used our inquiry services and were pleased with the responses and information provided. We are still looking for constructive feedback on our User Database (UDB), very few respondents had comments on the UDB. Our thanks to readers that have already responded. If you have not yet done so, please return the surveys to the attention of Mary Jo Waters or, if you prefer, send her an e-mail to watersm@battelle.org

Controversy on Proposed Fort McClellan Closure

Hilary Hylton reports in Time on May 22, 1995, in "The Battle for Poison" that the Pentagon has plans to close Fort McClellan in Alabama, home of the U.S. Army Chemical School and move operations 350 miles north to Fort Leonard Wood, in Missouri. Representative Glen Browder of Alabama is doing everything he can to save 10,000 jobs (which is 17% of the work force) in the Anniston area. In Missouri, residents of the forested area surrounding the Ozarks, where operations are proposed to relocate, are opposed two to one to the issue. Once they learned about the potential dangers of the nerve gas training facility, families were concerned that their natural surroundings would be contaminated, endangering fowl and other indigenous animals. Their major complaint, however, was that they were kept completely in the dark about the plans of relocation. Representative Ike Skelton of Missouri pointed out that “if it’s so dangerous, why do the Alabama folks want to keep it?”. The Pentagon also has plans to build an incinerator to dispose of 2,500 tons of toxins housed in the Anniston area, but local sentiment on that, as Browder stated is, “if the Pentagon wants to take Fort McClellan to Missouri, then they can take their chemical garbage with them.” Meanwhile, Alabama is still trying to maintain thousands of jobs for their citizens by disseminating information to Missouri on the prospect of a chemical school in their state.

Ongoing and Recent Activities

Continued From Page 2

Completed:

Task	Description/Sponsor
487	Evaluate and Assess Technology, Production Processes, Applications, Documentation, System Developments, etc., for Application to PM Soldier. USA/PM Soldier
533	Provide Technical and Analytical Support Regarding the JSLIST and other CBD Programs to TECOM and Dugway Proving Ground. USA/TECOM
539	Evaluate the Effect of Storage on the Chemical Agent Resistance of the Navy Standard Chemical Protective Overgarment. USN/NAVSEA

Underway:

Task	Description/Sponsor
23	Conduct a systems Engineering Evaluation of the Lightweight Standoff Chemical Agent Detector (LSCAD) Application to UAV's, Ships and Armored Vehicles. USA/ERDEC
24	Evaluate the Decontaminability of F-111 Coupons, Compare to F-111 Flight Data, and Normalize the Residual Chemical Hazard Model. USAF/HSD
30	Develop an Integrated Product Development Plan for the Integrated Biodetection Advanced Technology Demonstrator. USA/ERDEC
33	Evaluate the Filtration Capability of the ERDEC Chemical Agent Test Chamber. USA/ERDEC
40	Evaluate the ERDEC Respirator Protection Factor Aerosol Distribution System and Recommend a Design for its Improvement. USA/ERDEC
41	Develop and Evaluate Polyclonal Antibodies to Support the Biologcal Integrated Defense System. USA/CBDCOM
42	Conduct a Worldwide Literature Search to Identify Sources of Antibodies. USA/CBDCOM
43	Develop and Evaluate Monoclonal Antibodies Prepared from Hybridona Cell Lines. USA/CBDCOM
48	Assess the USA West Dessert Test Center's CB Protective Clothing Testing Data Acquisition Management System. USA/DPG
49	Provide Technical and Administrative Support to the 1995 U.S./ German Environmental Data Exchange Meeting. USA/ERDEC
51	Determine the Quantitative and Qualitative Biochemical Makeup of Selected Organisms. USA/ERDEC
52	Evaluate the Suitability of Proposed HD and VX Neutralization Methods for Use as a Demilitarization Process. USA/ERDEC
58	Assess Bio-Defense and Vaccine Related Research, Technologies and Equipment. USA/JPO-BD
60	Evaluate Aerosol Detection Instruments and Test Aerosols to Assess Suitability to Measure Respirator Performance. USA/ERDEC
61	Analyze, Extract and Compile Information on Human Exposure to Chemical Agents. OSD/DMDC
64	Prepare a Guidebook of Performance Standards for the Operation of a Commercial RDT&E Surety Laboratory. USA/ERDEC
69	Review and Document Information Related to R&D with EA 4923 During the Period 1962 - 1964 Inclusive. USA/ERDEC

CBIAC STATISTICS
(Third Quarter, FY 95)

Total CBIAC documents accessible through DTIC DROLS: 7,568

Shared[1]: 4,626 Unique[2]: 2,942

Total documents during added to the CBIAC UDB:

Acquired: 418
Reviewed: 0
Cataloged[1,2]: 1,153

Total document citations available through the CBIAC UDB: 44,821

Total documents on site: 23,316

Total inquiries received: 227

Technical: 50
Informational: 41
Bibliographic: 128
Referral: 8

Total newsletter subscribers: 2,200

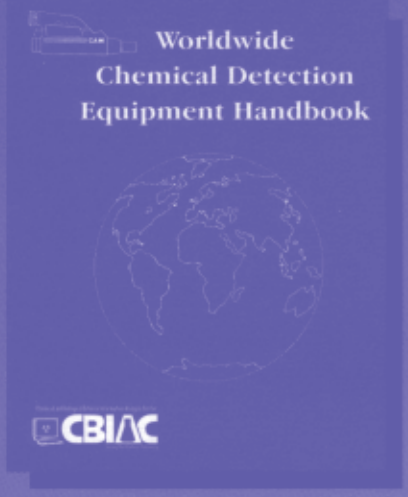
1 Existing DTIC records appended with CBIAC terms
2 New DTIC records created by the CBIAC

Chemical and Biological Defense Information Analysis Center

CBIAC

Serving the CB Defense Community

WORLDWIDE CHEMICAL DETECTION EQUIPMENT HANDBOOK



A hardcover book consisting of over 400 pages containing detailed drawings, photographs and illustrations, many in color:

- Provides a valuable resource for engineers and scientists involved in CB R&D efforts, the intelligence community, the Chemical Weapons Convention (CWC) verification community, equipment evaluators, foreign Governments and embassies, news media, military libraries and information centers
- Includes active and passive standoff detection technologies as well as the following point detection technologies: ionization/ion mobility, flame photometry, mass spectrometry, photoacoustic infrared spectroscopy, electrochemistry, and enzyme and wet chemistry reactions used in detection kits, tickets and papers
- Documents physical and performance specifications for over 90 CB detectors
- Incorporates nearly 100 individual contributions from world renowned experts in CB defense
- Presents data on CB detection equipment from 20 countries representing NATO, the former Warsaw Pact and nonaligned nations
- Cross-references equipment by country, manufacturer, technology and alphabetical
- Summarizes in table format agents detected by each item

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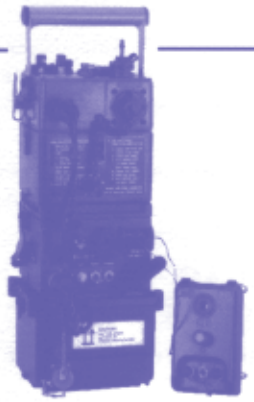

ORDERING INFORMATION

Special Introductory Offer

Orders received or postmarked on or before September 30, 1995

$249.95 per copy/
$199.95 for additional copies to the same purchaser (U.S. dollars only)

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$299.95 per copy/
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For more information please phone, FAX, write, or E-Mail

Battelle Edgewood Operations
Attn: CBIAC, Judith M. Shetterly
Worldwide Chemical Detection Equipment Handbook
P.O. Box 196
Gunpowder Br. APG, MD 21010-0196
Telephone: (410) 676-9030
FAX: (410) 676-9703
E-Mail: shetterj@battelle.org

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Pre-publication orders will be delivered after September 30, 1995. All other orders, please allow 4 to 6 weeks for delivery. Handbooks will be delivered after receiving full payment. Price includes tax.

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The CBIAC NEWSLETTER is a quarterly publication of the Chemical Warfare/Chemical and Biological Defense Information Analysis Center (CBIAC). The CBIAC is a Department of Defense (DoD) Information Analysis Center (IAC), administratively managed by the Defense Technical Information Center (DTIC) under the DoD IAC Program. The Contracting Officer's Technical Representative is Mr. Joseph Williams. He may be reached at:

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Government agencies and private industry under contract to the Department of Defense can contact the CBIAC which serves as a center for the acquisition, compilation, analysis and dissemination of information relevant to chemical warfare and chemical and biological defense technology. The CBIAC staff is available to answer questions from 7:00 a.m. to 5:00 p.m, EST.

The CBIAC is located in Building E3330, Aberdeen Proving Ground-Edgewood Area, Maryland 21010.

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